### OPIC OFFICE DE LA PROPRIÉTÉ INTELLECTUELLE DU CANADA



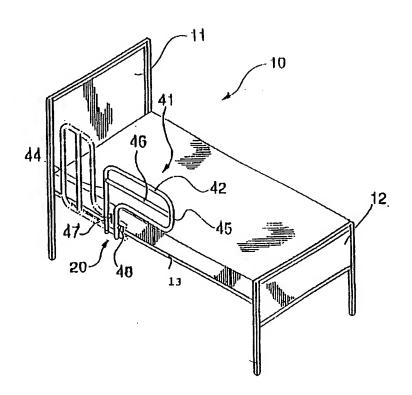
## (12) (19) (CA) Demande-Application

CIPO CANADIAN INTELLECTUAL PROPERTY OFFICE

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- (30) 1997/05/23 (08/862,245) US
- (54) COTE DE LIT SE PLACANT EN POSITION D'AIDE ET EN POSITION DE SECURITE
- (54) DUAL AȘSIST AND GUARD RAIL FOR BEDS



(57) Amélioration apportée à un lit doté d'un côté de lit et à au moins un côté de lit à double position se fixant sur un des bords du lit. L'amélioration consiste en une structure pivotante sur laquelle le côté de lit à double position est fixé et qui permet à ce côté de lit de passer de l'une à l'autre de deux positions bloquées complètement et verrouillées automatiquement. La première des positions bloquées complètement et verrouillées automatiquement et permet de fixer le côté de lit en une position d'aide, soit verticale et perpendiculaire à l'axe

(57) An improvement is provided in a bed having a side rail framework, and at least one dual-position rail assembly which is secured on one side of the bed. The improvement includes a rotatable structure upon which the dual-position rail assembly, is mounted in order to enable the dual-position rail assembly to move between two positively-stopped and automatically locked positions. A first of such positively-stopped and automatically locked positions disposes the dualposition rail assembly in an assist, vertically-oriented,

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longitudinal du lit. La deuxième de ces positions permet de fixer le côté de lit en position de sécurité, soit horizontale et parallèle à l'axe longitudinal du lit. Le mécanisme de verrouillage assurant le blocage complet et le verrouillage automatique est un mécanisme qui verrouille automatiquement le côté de lit à double position et qui le maintient dans la position sélectionnée, soit dans la première position de blocage complet et de verrouillage automatique, soit dans la deuxième position de blocage complet et de verrouillage automatique. Le côté de lit à double position n'est pas conçu pour être contrôlé par la personne se trouvant dans le lit, mais il peut être contrôlé sélectivement et autrement pour aider une personne à entrer ou à sortir du lit ou pour maintenir cette personne au lit.

position which is perpendicular to the longitudinal axis of the bed. A second of such positively-stopped and automatically locked positions disposes the dual-position rail assembly in a guard, horizontally-oriented, position which is parallel to the longitudinal axis of the bed. The lock structure for assuring such stopped and locked position is one which automatically locks and maintain the assist dual-position rail in a selected one of the positively-stopped and automatically locked first position, or the positively-stopped and automatically locked second position. The dual-position rail assembly is not adopted to be operated by the occupant of the bed, but it can be selectively, otherwise operated to aid a person in getting in or out of bed, or to restrain the person within the bed.

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#### (1) TITLE OF THE INVENTION

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DUAL-POSITION ASSIST AND GUARD RAIL FOR BEDS

#### (2) BACKGROUND OF THE INVENTION

#### (a) Field of the Invention

This invention relates to side guards or rails for beds. More particularly, it relates to such side guards or rails which are movable between two differently-oriented, positively-stopped and locked positions, and to mechanisms to enable the moving of the rails between such positions. One particularly useful such rail is for hospital beds. However, the assist and guard rail is useful for all beds having a side rail framework.

#### (b) Description of the Prior Art

As noted above, one particular use for such rail is for hospital beds. Hospital beds had rails along the sides thereof for two purposes. One purpose of such bed rail structure along the edges of the bed was to prevent the patient from falling out of bed. The early prior art devices that were employed for this purpose used rigid frame members that were clamped, when in use, to the side of the bed. While these devices seemed to serve the purpose for which they were intended, they brought about the disadvantage that they made it difficult to treat the patient and also caused considerable difficulty during the changing of the sheets or blankets on the bed.

To provide an alleged improvement over such primitive devices, standard hospital-type beds generally now include side rails which may be of two types. One type comprised a single-piece tubular side rail structure which extended substantially the length of the bed and which must be lifted off to allow the patient to be moved, or, if the patient was movable, to allow the patient to exit or to enter the bed. The other typical type comprised a similar side rail structure which had a complicated and expensive hinged mechanism to allow the side rail to be lowered to the floor. This was thought to be more convenient for the aide, but it was impossible for the patient to manoeuvre if the patient was in the bed.

Accordingly, the art next developed bed rail devices that were, in a sense, retractable so that the rail devices could either be placed in an "up" position or could be moved to a "down" position, in order to render the top surface of the bed easily accessible. Safety bed rails and side guards which were especially adapted to prevent persons from falling out of bed are thus now well known. Various constructions of such bed guards provided such bed guards which were movable between a raised position, in which the bed guard was supported at a level above the surface of the bed mattress and a retracted or lowered position in which the bed guard was either moved out of the way toward one end of the bed, or was lowered to a position below the mattress.